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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,277	09/27/2004	William K. Hagmann	21071YP	7661

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EXAMINER	
KUMAR, SHAILENDRA	
ART UNIT	**PAPER NUMBER**
1621	

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/509,277	HAGMANN ET AL.	
	Examiner	Art Unit	
	SHAILENDRA -. KUMAR	1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6, 8-14 and 16-24* is/are rejected.

7)☒ Claim(s) *7 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to applicants' communication filed on 5/5/06.

Claims 1-24 are pending in this application.

Applicants' election of species when R1 and Ar1 are non heterocyclic, with traverse, is acknowledged herewith. Applicants traverse because the compounds share the common technical features of modulating the CBI receptor by antagonism/inverse agonism, and share the common use of being useful for treating diseases, and the compounds share the features of being substituted aryl amide. This is not found convincing inasmuch as the substituted aryl amides can be used in a different method of use such as being intermediate for the final product, and inasmuch as the compounds are patentably distinct and classified separately with respect to the US classification system, and thus undue burden on the PTO. This restriction requirement is made FINAL.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> **The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.**

2. Claims 18-22 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for treating obesity, does not reasonably provide enablement for various other diseases as claimed in claim 21. The specification does not enable any person skilled in the art to which it pertains, or with which it is most

nearly connected, to make and use the invention commensurate in scope with these claims.

The factors to be considered in making an enablement rejection have been summarized below. The instant claim 21 is drawn to treating a cannabinoid receptor mediated disease by inhibiting the activity of cannabinoid receptor in general or CB-I receptor in specific. The scope of the claim includes several specific diseases besides obesity and eating disorder but there is no corresponding enabling disclosure. The instant compounds are disclosed to have cannabinoid receptor inhibitory activity and it is recited that the instant compounds are therefore useful in treating all diseases stated in the claim 21 for which applicants provide no competent evidence. It appears that the applicants are assessing that the embraced compounds because of their mode action as cannabinoid receptor inhibitor that would be useful for all sorts of diseases and disorders, including psychosis, memory deficit, cognitive disorders, migraine, neuropathy, neuroinflammatory disorders, cerebral vascular accident, and head trauma anxiety disorders, stress, epilepsy, Parkinson's disease, schizophrenia, substance abuse disorders, constipation and chronic intestinal pseudo-obstruction, cirrhosis of the liver, asthma, obesity and other eating disorder. However, the applicants have not provided any competent evidence that the instantly disclosed tests are highly predictive for all the uses disclosed and embraced by the claim language for the intended host. Moreover many if not most of diseases such as Parkinson's disease, instant compounds can be administered in order to have the "prevention" effect. There
is no evidence of record, which would enable the skilled artisan in the identification of

the people who have the potential of becoming afflicted with the diseases or disorders claimed herein.

The scope of the claims involves all of the thousands of compounds of claim 1 as well as the numerous diseases embraced by the terms a disease or disorder.
Note substantiation of utility and its scope is required when utility is "speculative", "sufficiently unusual" or not provided. See Ex parte Jovanovics, 21 1 USPQ 907, 909*, In re Langer 183 USPQ 288. Also note Hoffman v. Klaus 9 USPQ 2d 1657 and Ex parte Powers 220 USPQ 925 regarding type of testing needed to support In vivo uses.
Next, applicant's attention is drawn to the Revised Utility and Written Description Guidelines, at 66 FR 1092-1099, 2001 wherein it is emphasized that 'a claimed invention must have a specific and substantial utility'. The disclosure in the instant case is not sufficient to enable the instantly claimed method treating solely based on the inhibitory activity disclosed for the compounds. The state of the art is indicative of the requirement for undue experimentation. See Petrocellis et al., British Journal of Pharmacology, 141, 765-774, 2004, especially the concluding paragraph. See also Black, Curr. Opin. Investig. Drugs 544): 389-394, 2004 (PubMed Abstract provided)
In evaluating the enablement question, several factors are to be considered.
Note In re Wands, 8 USPQ2d 1400 and Ex parte Forman, 230 USPQ 546. The factors include: 1) The nature of the invention, 2) the state of the prior art, 3) the predictability or lack thereof in the art, 4) the amount of direction or guidance present, 5) the presence or absence of working examples, 6) the experimentation needed. breadth of the claims,

and 7) the quantity of 1) The nature of the invention'. Therapeutic use of the compounds in treating disorders/diseases that require cannabinoid receptor inhibitory activity.

2) The state of the prior art: Recent publications expressed that the cannabinoid receptor inhibition effects are unpredictable and are still exploratory. See references cited above. 3) The predictability or lack thereof in the ad: Applicants have not provided any competent evidence or disclosed tests that are highly predictive for the pharmaceutical use for r treating any or all condition of the instant compounds. Pharmacological activity in general is a very unpredictable area. Note that in cases involving physiological activity such as the instant case, "the scope of enablement obviously varies inversely with the degree of unpredictability of the factors involved". See In re Fisherb 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970).

4) The amount of direction or guidance present and 5) the presence or absence of working examples: Specification has no working examples to show treating any or all condition and the state of the art is that the effects of cannabinoid receptor inhibitors are unpredictable.

6) The breadth of the claims: The instant claims embrace any or all diseases or disorders and cancers including those yet to be related to cannabinoid receptor activity.

7) The quantity of experimentation needed would be an undue burden to one skilled in the pharmaceutical arts since there is inadequate guidance given to the skilled artisan, regarding the pharmaceutical use, for the reasons stated above. Thus, factors such as "sufficient working examples", "the level of skill in the art" and "predictability', etc. have been demonstrated to be sufficiently lacking in the instant case for the instant method

claims. In view of the breadth of the claims, the chemical nature of the invention, the unpredictability of enzyme-inhibitor interactions in general, and the lack of working examples regarding the activity of the claimed compounds towards treating the variety of diseases of the instant claims, one having ordinary skill in the art would have to undergo an undue amount of experimentation to use the instantly claimed invention commensurate in scope with the claims. MPEP 2164.01(a) states, "A conclusion of lack of enablement means that, based on the evidence regarding each of the above factors, the specification, at the time the application was 'filed, would not have taught one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation. In re Wright, 999 F.2d 1557,1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993)." That conclusion is clearly justified here and undue experimentation will be required to practice Applicants' invention.

Applicants' election of a single compound of example 63 is free of prior art. In view of the prior art found while examining the elected species and closely related compounds, which clearly the claims unpatentable, the election is granted force and effect. Accordingly, the claims have been examined solely to the extent of elected species and closely related compounds.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> **A person shall be entitled to a patent unless –**
>
> **(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.**

4. Claims 1-6 and 8-14 and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishiwata et al(Yakugaku Zasshi, 1951).

Ishiwata et al, page 1273, compound (IV), when R is benzyl and R1 is phenyl, anticipate instant claimed compounds and composition, especially, when the compounds are in water and water is well known pharmaceutical carrier.

5. Claim 7 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHAILENDRA -. KUMAR whose telephone number is (571)272-0640. The examiner can normally be reached on Mon-Thur 8:00-5:30, Alt Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on (571)272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SHAILENDRA KUMAR
Primary Examiner
Art Unit 1621

S.Kumar
7/14/06